

**REMARKS**

The Office Action of May 17, 2006, has been received and reviewed.

Claims 1-85 were previously under consideration in the above-referenced application. Of these, claims 26-52 were withdrawn from consideration. Claims 1-25 and 53-85, which were considered, were rejected in the Office Action.

Claims 26-55 have been canceled without prejudice or disclaimer.

New claims 86-97 have been added.

Reconsideration of the above-referenced application is respectfully requested.

**Objection to the Drawings**

The drawings have been objected to pursuant to 37 C.F.R. § 1.83(a) for purportedly failing to illustrate every feature specified in the claims. Specifically, the Office has objected to the drawings because they do not illustrate “hardware in the data processor,” as recited in claim 81.

In addition to setting the requirements for the features that must be specified in the drawings of a patent application, 37 C.F.R. § 1.83(a) also provides the following exception:

However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (*e.g.*, a labeled rectangular box).

As one of ordinary skill in the art would readily understand that “hardware in the data processor” refers to circuitry, this feature has been shown as a rectangular box identified by reference character 21 in Fig. 1. This revision to Fig. 1 does not amount to the introduction of new matter into the above-referenced application since the as-filed specification, in claims 41 and 42, disclosed that the data processor could include hardware. *See* M.P.E.P. § 2163 I.

Accordingly, withdrawal of the 37 C.F.R. § 1.83(a) objection to the drawings is respectfully requested.

**New Matter Objection under 35 U.S.C. § 132**

The amendment of July 8, 2005, has been objected to for introducing new matter into the above-referenced application. This objection is based on the recitation “hardware in the data processor” in claim 81.

As noted previously herein, support for the recitation “hardware in the data processor” was provided in claims 41 and 42 of the as-filed application. *See* M.P.E.P. § 2163 I.

Therefore, withdrawal of the new matter rejection under 35 U.S.C. § 132 is respectfully requested.

**Rejections under 35 U.S.C. § 112, First Paragraph**

In addition to objecting to the drawings and claims because of the recitation of “hardware in the data processor” in claim 81, this claim has been rejected under the first paragraph of 35 U.S.C. § 112 on the basis that the originally filed specification does not provide an adequate written description of the subject matter recited in claim 81.

M.P.E.P. § 2163, paragraph I clearly indicates that the claims that are filed with an application may be relied upon to provide an adequate written description, provided that one of ordinary skill in the art would “recognize [in them] a description of the invention defined by the claims.” M.P.E.P. § 2163 I.A. It is the Office’s burden to present evidence that would show otherwise. *Id.*

Again, the originally filed specification, in claims 41 and 42, provides basis for the recitation of “hardware in the data processor” in claim 81. It is respectfully submitted that one of ordinary skill in the art would readily understand what is meant by this recitation.

As such, claim 81 complies with the written description requirement of 35 U.S.C. § 112, first paragraph. Accordingly, it is respectfully submitted that, under 35 U.S.C. § 112, first paragraph, claim 81 is in condition for allowance.

**Rejections under 35 U.S.C. § 112, Second Paragraph**

Claims 58, 59, 62, 63, 65-68, 78, and 79 are rejected under 35 U.S.C. § 112, second paragraph, for reciting subject matter that is purportedly indefinite. In particular, it has been

asserted that each of claims 58, 59, 62, 63, 65-68, 78, and 79 fails to further limit the subject matter from the claim or claims from which it depends.

The additional structural limitation of each of claims 58, 59, 62, 63, 67, 68, 78, and 79 resides in the functionality of the data processor recited therein.

Claim 58, which depends from independent claim 1, recites that the light therapy apparatus of independent claim 1 further comprises a data processor. As a data processor is not a required element of independent claim 1, it is respectfully submitted that claim 58 further limits the subject matter recited in independent claim 1.

Claim 59 depends from claim 58. Claim 59 recites that the data process of claim 58 is configured to calculate a period of time that therapeutic light is to be delivered to a subject, whereas claim 58 includes no such requirement.

Claim 62 also depends from claim 58, while claim 78 depends from claims 76 and 73. Claims 62 and 78 recite that the data processor of the device recited in claims 58 and 76, respectively, is configured to determine the amount of therapeutic light or the timing of therapeutic light to be delivered to a subject. As claims 58 and 76 do not include this requirement, claims 62 and 78 further limit the subject matter recited in claims 58 and 76, respectively.

Claims 63 and 79, which depend from claims 62 and 78, respectively, further limit the subject matter of claims 62 and 78 by indicating that the amount of therapeutic light delivered to the subject may, instead of merely being controlled, simulate gradually decreasing light at dusk or simulate gradually increasing light at dawn.

In claim 65, which depends from claims 64, 58 and 1, the data input device is configured to receive data regarding a subject, a requirement that is not present in claim 64, in which the data input device is introduced.

Claim 66 also depends from claim 64, and further requires that the data input device be configured to receive data regarding travel that would affect the amount or timing of light that is to be delivered to a subject.

The additional structural limitation of both claim 65 and claim 66 is the type of data or information that the data input device is configured to receive.

Claim 67, which depends from claims 64, 58, and 1 includes the additional limitation that the data processor of claim 58 be configured to execute an embedded algorithm to process data input with the data input device of claim 64 for controlling the amount and timing of therapeutic light to be delivered to a subject.

Claim 68 depends from claim 67 and further limits the device of claim 67 by requiring that the algorithm comprise software in the data processor.

As each of claims 58, 59, 62, 63, 65-68, 78, and 79 presents an additional structural or functional limitation that further limits the scope of a prior claim, it is respectfully submitted that each of these claims is in condition for allowance under 35 U.S.C. § 112, second paragraph, and that the § 112, second paragraph, rejections of each of these claims should be withdrawn.

### **Rejections under 35 U.S.C. § 102**

Claims 1-5, 7-13, 18-21, 24, 53-57, 70-75, and 83-85 have been rejected under 35 U.S.C. § 102.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single reference which qualifies as prior art under 35 U.S.C. § 102. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

With respect to inherency, M.P.E.P. § 2112 provides:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) . . . ‘To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill . . .’” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1991).

Bamber

Claims 1, 12, 19, and 53-57 stand rejected under 35 U.S.C. § 102(b) for being drawn to subject matter that is purportedly anticipated by the subject matter described in U.S. Patent 5,467,258 to Bamber et al. (hereinafter “Bamber”).

Independent claim 1, as amended and presented herein, is drawn to a light therapy apparatus. The light therapy apparatus of amended independent claim 1 includes a hand-held light output device. The hand-held light output device includes a plurality of light sources that output light suitable for ocular light therapy. In addition, the output light has a maximum illumination level of about 2,500 lux at about 6 inches to about 12 inches from the plurality of light sources.

The phrase “suitable for ocular light therapy” in independent claim 1 would be readily understood by one of ordinary skill in the art to include a variety of white light illuminances, as well as specific wavelengths or wavelength ranges of light that are not necessarily limited by a particular illuminance. It would be clear to one of ordinary skill in the art that “white” indoor lighting, which the Office has asserted (based on the disclosure of U.S. Patent 6,831,689 to Yadid-Pecht) includes light having an illuminance of up to about 1,000 lux, is not suitable for ocular light therapy. In reality, the indoor illuminance range disclosed in Yadid-Pecht is much too broad—with indoor lighting having an illuminance of about 400 lux being considered “bright.” See <http://en.wikipedia.org/wiki/Lux>, a copy of which is enclosed. This is because the brighter light is, the more it simulates natural sunlight, which, if present at the appropriate times or for the appropriate durations, would negate the need for ocular light therapy.

Bamber lacks any express or inherent description that the flashlight thereof includes a plurality of sources that output light suitable for ocular light therapy, as would be required to anticipate each and every element of independent claim 1. The description of Bamber is limited to a first, incandescent light source, and a second, fluorescent light source. As indicated by the enclosed webpage (<http://en.wikipedia.org/wiki/Lux>), it is clear that the two or more white incandescent or fluorescent light sources that are required to properly illuminate a room of average area have collective illuminances of only about 400 or 500 lux, which one of ordinary skill in the art would understand to be insufficient for ocular light therapy.

Therefore, the subject matter described in Bamber does not, under 35 U.S.C. § 102(b), anticipate each and every element of amended independent claim 1.

Claims 12, 19, 56, and 57 are each allowable, among other reasons, for depending directly or indirectly from claim 1, which is allowable.

Claim 56 is also allowable because Bamber does not expressly or inherently describe that the two lamps of the flashlight disclosed therein are configured to output light of about 1,000 lux to about 2,000 lux at a distance of about 6 inches to about 12 inches.

Claims 53-55 have been canceled without prejudice or disclaimer, rendering the rejections of these claims moot.

#### Marsh

Each of claims 1-5, 11, 13, 18-21, 24, and 53-57 is rejected under 35 U.S.C. § 102(b) for reciting subject matter that is assertedly anticipated by the disclosure of U.S. Patent 6,135,620 to Marsh (hereinafter “Marsh”).

In the rejection of claims 1-5, 11, 13, 18-21, 24, and 53-57, an assumption has apparently been made that a traffic light must be brighter than daylight. That is not the case. It is respectfully submitted that if it were the case that traffic lights had to be brighter than daylight to be seen during midday, they would provide at least as much light in darkness as the sun does during midday. In fact, traffic lights need not be any brighter (or even as bright as) indoor lighting to be seen during the middle of a clear day. By way of comparison, an individual can also readily and clearly see daytime running lamps on the front of an automobile, which are only about as bright as indoor lighting, at noon on a clear day.

Further, as noted in the enclosed webpage (<http://en.wikipedia.org/wiki/Lux>), lux is a measure of the illumination a source of light provides, as perceived by the human eye. When the illuminance of a single wavelength or narrow range of wavelengths of light (*i.e.*, light of a particular color) is measured, its illumination is perceived by the human eye to be less than the illuminance of broader spectrum (*e.g.*, white light). See <http://en.wikipedia.org/wiki/Lux>.

Thus, in addition to its lack of an express description that the traffic lights thereof output light suitable for ocular light therapy, Marsh also lacks any inherent description that the light output thereby is suitable for ocular light therapy.

Moreover, assuming for the sake of argument that larger implementations of the CCFLs of Marsh did output light suitable for ocular light therapy, the larger implementations, such as traffic signals, could hardly be considered to meet the “hand-held light output device” requirement of independent claim 1.

As for the smaller implementations, such as EXIT signs, light bulbs, and mountable lamps, it is also clear that they are not “hand-held light output device[s]” and that, because they are merely configured “for use in general light applications” (*see, e.g.*, col. 8, line 23, to col. 11, line 47; col. 12, line 23, to col. 14, line 14), there is no express or inherent disclosure in Marsh that they are suitable for use in providing ocular light therapy.

Notably, Marsh also discloses that the CCFLs thereof may be included in flash lights or torches (col. 14, lines 24-26). Nonetheless, Marsh includes no express or inherent description that any of the hand-held embodiments described therein would output light sufficient for ocular light therapy.

As Marsh does not expressly or inherently describe each and every element of amended independent claim 1, it is respectfully submitted that, under 35 U.S.C. § 102(b), the subject matter recited in amended independent claim 1 is allowable over the disclosure of Marsh.

Each of claims 2-5, 11, 13, 18-20, 56, and 57 is allowable, among other reasons, for depending directly or indirectly from claim 1, which is allowable.

Claim 18 is further allowable since Marsh includes no express or inherent description of a manual timer.

Claim 56 is also allowable because Marsh includes no express or inherent description that the two lamps of the flashlight disclosed therein are configured to output light of about 1,000 lux to about 2,000 lux at a distance of about 6 inches to about 12 inches.

Independent claim 21, as amended and presented herein, is drawn to a light therapy device that includes a light source for outputting light suitable for ocular light therapy. As noted

previously herein, Marsh does not expressly or inherently describe that the flashlight thereof may output light suitable for ocular light therapy. Therefore, under 35 U.S.C. § 102(b), the subject matter to which amended independent claim 21 is drawn is allowable over the subject matter described in Marsh.

Claim 24 is allowable, among other reasons, for depending directly from claim 21, which is allowable.

As claims 53-55 have been canceled without prejudice or disclaimer, the rejections of these claims are moot.

Kuelbs

It has also been asserted that U.S. Patent 6,612,713 to Kuelbs (hereinafter “Kuelbs”) anticipates, under 35 U.S.C. § 102(b), the subject matter to which each of claims 1-4, 7-13, 19, 21, 24, 53-57, 70-75, and 83-85 is directed.

The patio umbrella of Kuelbs could hardly be considered to be hand-held. Although the patio umbrella of Kuelbs is portable, it is a very large device that must be supported by a removable base.

Moreover, it is respectfully submitted that Kuelbs lacks any express or inherent description that the lights of the patio umbrella disclosed therein output light suitable for ocular light therapy. Although it has been asserted that these lights would necessarily output light with an illuminance of greater than 10,000 lux (Final Office Action, page 3), that is not true. This is because light would only be needed outdoors in the nighttime. The amount of light required to read or conduct other activities that require light under an umbrella merely approximates the amount of light that is needed indoors (*e.g.*, about 250 lux to about 500 lux), which, when the light is “white,” is far less than the illuminance of the sun at noon on a clear day and certainly not recognized by those of ordinary skill in the art as being suitable for ocular light therapy. Nor does Kuelbs disclose such.



For these reasons, it is respectfully submitted that Kuelbs does not anticipate each and every element of amended independent claim 1, as would be required to maintain the 35 U.S.C. § 102(b) rejection of amended independent claim 1.

Claims 2-4, 7-13, 19, 56, 57, and 70-72 are each allowable, among other reasons, for depending directly or indirectly from claim 1, which is allowable.

Claim 4 is further allowable since the lights of the patio umbrella of Kuelbs are radially arranged—they are not arranged in a parallel relationship.

Claim 56 is additionally allowable because Kuelbs neither expressly nor inherently describes that the lights of the patio umbrella described therein are configured to output light of about 1,000 lux to about 2,000 lux at a distance of about 6 inches to about 12 inches therefrom.

Claims 53-55 have been canceled without prejudice or disclaimer. Thus, the rejections of these claims are moot.

Amended independent claim 21 recites subject matter that is allowable over that disclosed in Kuelbs since Kuelbs lacks any express or inherent description that the lights of the patio umbrella thereof may output light suitable for ocular light therapy. As Kuelbs does not anticipate this element of amended independent claim 21, under 35 U.S.C. § 102(b), the subject matter recited in amended independent claim 21 is allowable over the subject matter disclosed in Kuelbs.

Claim 24 is allowable, among other reasons, for depending directly from claim 21, which is allowable.

With respect to the subject matter recited in independent claim 73, Kuelbs includes no express or inherent description that the patio umbrella thereof is “hand-held.”

Claims 74 and 75 are both allowable, among other reasons, for depending directly from claim 73, which is allowable.

Independent claim 83 is directed to a hand-held light therapy device that includes a light source configured to emit therapeutic ocular light. The device of independent claim 83 also

includes a transition member that provides a cover for the light source when in a closed position and serves as a base for supporting the light source in an upright position when in an open position.

It is respectfully submitted that Kuelbs does not expressly or inherently describe several elements of independent claim 83. First, the patio umbrella of Kuelbs is not a hand-held device. Second, Kuelbs does not expressly or inherently describe that the lights of the patio umbrella disclosed therein output therapeutic ocular light. Third, while the patio umbrella of Kuelbs includes an umbrella that opens and closes, the umbrella does not serve as a base for supporting the lights thereof in an upright position when the umbrella is opened. Rather, a separate element – a removable base – supports the umbrella and, thus, the lights thereof, in an upright position.

As Kuelbs does not anticipate each and every element of independent claim 83, under 35 U.S.C. § 102(b), the subject matter recited in independent claim 83 is allowable over the subject matter described in Kuelbs.

Claims 84 and 85 are both allowable, among other reasons, for depending directly from claim 83, which is allowable.

Claim 84 is further allowable because the umbrella of Kuelbs is not configured to rest flat on a surface when opened.

Claim 85 is additionally allowable since Kuelbs neither expressly nor inherently describes that the umbrella portion or any other feature of the patio umbrella described therein is configured to rotate about the umbrella portion (*i.e.*, a housing that contains a light source) between an open position and a closed position.

Withdrawal of the 35 U.S.C. § 102 rejections of claims 1-5, 7-13, 18-21, 24, 53-57, 70-75, and 83-85 is respectfully requested.

**Rejections under 35 U.S.C. § 103(a)**

Claims 1, 2, 4-6, 13-18, 21-25, 58-69, and 76-82 stand rejected under 35 U.S.C. § 103(a).

The standard for establishing and maintaining a rejection under 35 U.S.C. § 103(a) is set forth in M.P.E.P. § 706.02(j), which provides:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Whichter, Arao, and HP User's Guide

Claims 1, 2, 4-6, 13-18, and 21-25 have been rejected under 35 U.S.C. § 103(a) for being drawn to subject matter that is assertedly unpatentable over the subject matter taught in U.S. Patent 6,381,124 to Whichter et al. (hereinafter "Whichter"), in view of teachings from U.S. Patent 6,596,571 to Arao et al. (hereinafter "Arao") and "HP Jornada 700 Series Handheld PC User's Guide (hereinafter "HP User's Guide"), and, further, in view of statement in the BACKGROUND section of the above-referenced application that batteries may be used to power cold cathode fluorescent lights (CCFLs).

It is respectfully submitted that there are at least two reasons that teachings from Whichter, Arao, and the HP User's Guide cannot be relied upon to establish a *prima facie* case of obviousness against any of the claims of the above-referenced application.

First, it is respectfully submitted that, without the benefit of hindsight that has been provided to the Office by the disclosure and claims of the above-referenced application, one of ordinary skill in the art wouldn't have been motivated to combine teachings from Whichter, Arao, and the HP User's Guide in the manner that has been asserted. This is because one of ordinary skill in the art of light therapy devices, as recited in the claims of the above-referenced application, would have no reason to apply teachings from laptop computers and other portable electronic devices with backlit LCD screens to light therapy devices. As noted in the Amendment dated July 8, 2005, the backlit LCD screens of such devices have very low power

requirements and, consequently, output very little light. As such, one in the art of light therapy devices would not consider the light components of such devices to output light that is suitable for ocular light therapy.

Second, it is respectfully submitted that Whichter, Arao, and the HP User's Guide do not, individually or separately, teach or suggest each and every element of any of the rejected claims. Again, the Office has assumed that for light to be seen during broad daylight, it must be more intense than the broad daylight. This assumption is incorrect. Even very dim light (*e.g.*, the flame of a lit match or candle) can be seen outside during the middle of a clear day. Thus, it is evident that the CCFL backlights of the computer disclosed in Whichter need not be extremely bright to be viewed outside during the day. Further, if the backlit screen of the computer disclosed in Whichter were as bright as the sun, direct viewing of that screen would damage a viewer's eyes in the same way that occurs when the sun is directly viewed for prolonged periods of time.

Nor does Whichter include any teaching or suggestion that the CCFL backlights of the computer described therein may output light suitable for ocular light therapy, as would be required for Whichter to teach or suggest each and every element of independent claim 1. Like Whichter, Arao and the HP User's Guide, as well as the BACKGROUND section of the above-referenced application, each lack any teaching or suggestion of a device that includes light sources that may output light suitable for use in ocular light therapy.

Therefore, it is respectfully submitted that a *prima facie* case of obviousness has not been established against either independent claim 1 or independent claim 21, as would be required to maintain the 35 U.S.C. § 103(a) rejections of these claims.

Each of claims 2, 4-6, and 13-18 is allowable, among other reasons, for depending directly or indirectly from claim 1, which is allowable.

Claims 22-25 are each allowable, among other reasons, for depending directly or indirectly from claim 21, which is allowable.

Whichter in View of Terman

Claims 58-69 and 76-82 also stand rejected under 35 U.S.C. § 103(a). The rejections of claims 58-69 and 76-82 are based upon teachings from Whichter, in view of the subject matter taught in U.S. Patent 5,589,741 to Terman (hereinafter "Terman").

Claims 58-69 are each allowable, among other reasons, for depending directly or indirectly from claim 1, which is allowable.

Each of claims 76-82 is allowable, among other reasons, for depending directly or indirectly from claim 73, which is allowable.

Furthermore, without the hindsight that has been provided to the Office, one of ordinary skill in the art wouldn't have been motivated to combine teachings from Whichter and Terman in the asserted fashion. While the teachings of Whichter relate to backlit LCD displays for electronic devices, the teachings of Terman relate to light therapy devices. There would be no reason for one of ordinary skill in the art to replace the room light of Terman with the backlit LCD screen of Whichter. Moreover, as the amount of light output by backlit LCD displays is inadequate for ocular light therapy, there would be no reason for one of ordinary skill in the art to assume or expect that a backlit LCD display could be used in place of the room lights of the system disclosed in Terman.

Therefore, it is respectfully submitted that the Office has not established a *prima facie* case of obviousness against any of claims 58-69 or 76-82, as would be required to maintain the 35 U.S.C. § 103(a) rejections of these claims.

It is respectfully requested that the 35 U.S.C. § 103(a) rejections of claims 1, 2, 4-6, 13-18, 21-25, 58-69 and 76-82 be withdrawn and that each of these claims be allowed.

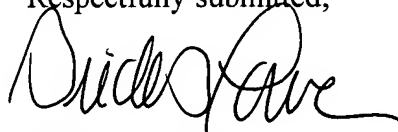
**New Claims**

New claims 86-97 have been added. It is respectfully submitted that none of the new claims introduces new matter into the above-referenced application. It is further submitted that each of new claims 86-97 defines subject matter that is patentable over the art upon which the Office has relied in making its prior claim rejections.

**CONCLUSION**

It is respectfully submitted that each of claims 1-25 and 56-97 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Brick G. Power", written in a cursive style.

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